

We claim:

1. A method of processing an application request on an end user application and an application server including a transaction message formatter comprising the steps of:

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- a) initiating the application request on the end user application in a first language with a first application program;
- b) transmitting the application request to the server and converting the application request from the first language of the first end user application to a form for the transaction message formatter running on the application server;
- c) processing said application request on the application server;
- d) transmitting a response to the application request from the application server to the end user application, and converting the response to the application request from the transaction message formatter running on the application server to the first language of the first end user application; and
- e) wherein the end user application and the application server have at least one connector therebetween, and the steps of (i) converting the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) converting a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language, each comprise the steps of:

- 1) invoking connector metamodels of respective source language and target transaction message formatter;

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- 2) populating the connector metamodels with metamodel data of each of the respective source language and target transaction message formatter, the metamodel data of the target transaction message formatter including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device field; and
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3) converting the source language to the transaction message formatter.

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2. The method of claim 1 wherein the end user application is a web browser.
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3. The method of claim 2 wherein the end user application is connected to the application server through a web server, and the web server comprises a connector.
4. The method of claim 1 wherein the metamodel comprises invocation metamodel data, application domain interface metamodel data, transaction message metamodel data, and type descriptor metamodel data.
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5. A transaction processing system comprising a client, a server, and at least one connector therebetween,
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a) the client having an end user application, and being controlled and configured to initiate an application request with the server in a first language with a first application program and to transmit the application request to the server;
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b) the connector being configured and controlled to receive the application request from the client, convert the application request from the first language of the first end user application running on the client to a language and a transaction message formatter running on the server;

- 5 c) the server being configured and controlled to receive the converted application request from the connector and processing the said application request in a second language with a second application program residing on the server, and to thereafter transmit a response to the application request through the connector back to the first application program on the client;
- 10 d) the connector being configured and controlled to receive a response to the application request from the server, to convert a response to the application request from the language running on the application server to the first language of the first application program running on the client; and
- 15 e) wherein connector between the client and the server is configured and controlled to (i) convert the application request from the first language of the client application on the client as a source language to the language running on the application server as a target language, and (ii) convert the response to the application request from the language running on the application server as a source language to the first language of the client application running on the client as a target language, each by a method comprising the steps of:
- 20 1) retrieving connector metamodels of respective source and target languages and target transaction message formatter from a metamodel data repository, said transaction message formatter metadata including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device field;
- 25 2) populating the connector metamodels with metamodel data from the metamodel data repository for each of the respective source and target languages; and
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3) invoking the retrieved, populated connector metamodels and converting the source language to the target language.

6. The system of claim 5 wherein the end user application is a web browser.

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7. The system of claim 6 wherein the end user application is connected to the application server through a web server, and the web server comprises an connector.

8. A transaction processing system configured and controlled to interact with a client application, and comprising a server, and at least one connector between the server and the client application, where the client has an end user application, and is controlled and configured to initiate an application request with the server in a first language with a first application program and to transmit the application request to the server, wherein:

15 a) the connector being configured and controlled to receive an application request from the client, convert the application request from the first language of the first end user application running on the client to a language running on the server;

20 b) the server being configured and controlled to receive the converted application request from the connector and process the said application request in a second language with a second application program and a target transaction message formatter residing on the server, and to thereafter transmit a response to the application request through the connector back to the first application program on the client;

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c) the connector being configured and controlled to receive the application request from the server, to convert a response to the application request from the language running on the application server to the first language of the first application program running on the client; and

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d) wherein connector between the client and the server is configured and controlled to (i) convert the application request from the first language of the client application on the client as a source language to the language running on the application server as a target language, and (ii) convert the response to the application request from the language running on the application server as a source language to the first language of the client application running on the client as a target language, each by a method comprising the steps of:

10 1) retrieving connector metamodel data of respective source and target languages from a metamodel data repository;

15 2) populating the connector metamodels with metamodel data of each of the respective source and target languages and target transaction message formatter, from the metamodel data repository, said target transaction message formatter metadata including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device field; and invoking the retrieved, populated connector metamodels; and

20 3) converting the source language to the target language.

9. The system of claim 8 wherein the end user application is a web browser.

10. The system of claim 9 wherein the end user application is connected to the
25 application server through a web server, and the web server comprises an connector.

11.. A program product comprising a storage medium having invocation metamodel data, application domain interface metamodel data, language metamodel data, and transaction message formatter metamodel data, said transaction message formatter
30 metamodel data including a message descriptor, logical page, password, segment, message field, device descriptor, device type, device division, device page and device

field; and computer instructions for building a metamodel data repository of source and target language metamodel data.

12. The program product of claim 11 wherein the metamodel data in the repository
5 comprises invocation metamodel data, application domain interface metamodel data,
transaction message formatter metamodel data, and type descriptor metamodel data.

U.S. GOVERNMENT PRINTING OFFICE: 2001 500-100-001